

1. A fastener having a recess constructed to have a partial interference fit with an associated driver for removably engaging said driver and said fastener, said fastener having a shank with a longitudinal axis, said shank constructed having the recess formed at its end, the recess having a central portion and a plurality of wings radiating outwardly from the central portion, each of the wings having an installation wall and a removal wall, the wings being configured so that at least one of the installation or removal walls defines a segment of a spiral, said recess further comprising:

a transition surface connecting said installation and removal walls of adjacent wings, said transition surface extending from a top portion of said recess to a bottom portion of said recess;

an interference surface constructed as a portion of said transition surface, said surface having a first radial distance from the longitudinal axis at a top portion thereof to a second radial distance from said longitudinal axis at a bottom portion thereof; and

wherein said first radial distance is larger than said second radial distance.

2. The fastener, according to claim 1, wherein said interference surface forms an angle with a line parallel to said longitudinal axis in a range of between .5 degrees to 2 degrees.

3. The fastener, according to claim 1, wherein said recess is formed having transition surfaces diametrically opposed across said recess and said interference surfaces on said opposing transition surfaces cooperate to form an interference fit with a driver constructed to engage said recess.

4. The fastener, according to claim 3, wherein said interference surfaces are constructed to provide an interference fit only at a forward portion of said driver and to allow said driver to have a surface to surface contact with said wings at a rearward portion of said driver.

5. The fastener, according to claim 1, wherein said first radial distance is constructed substantially according to a standard recess opening of a spiral type recess.

6. A method of manufacturing a fastener, wherein said fastener is constructed having a shank with a longitudinal axis, said shank constructed having a recess formed at its end, the recess having a central portion and a plurality of wings radiating outwardly from the central portion, each of the wings having an installation wall and a removal wall, the wings being configured so that at least one of the installation or removal walls defines a segment of a spiral, said method comprising the steps of:

constructing a cylindrical steel blank having a predetermined length;

drilling an axial bore from a top to a bottom of said blank;

inserting a wire through said bore for providing an EDM operation;

machining said recess using said wire EDM operation to form a die cavity;

in said machining operation, constructing a transition surface connecting said installation and removal walls of adjacent wings, said transition surface extending from said top portion of said bore to bottom portion of said bore;

wherein said transition surface is constructed having a first radial distance from the longitudinal axis at said top portion of said bore to a second radial distance from said longitudinal axis at said bottom portion of said bore, and wherein said first radial distance is larger than said second radial distance;

determining the level in said recess where said interference fit occurs;

measuring a predetermined depth of said recess from said level where said interference occurs; and

machining the top of said blank to said predetermined depth.

7. A method of manufacturing a fastener, according to claim 6, further comprising the step of:

hardening said blank to form a hob having a die cavity for use in forming a punch;

forming a punch using said hob.

8. A method of manufacturing a fastener, according to claim 8, further comprising the step of:

forming a recess on the shank by using said punch.

9. A method of manufacturing a fastener, according to claim 6, wherein said interference surface is constructed to form an angle with a line parallel to said longitudinal axis in a range of between .5 degrees to 2 degrees.

10. A method of manufacturing a fastener, according to claim 6, wherein said recess is formed having transition surfaces diametrically opposed across said recess and said interference surfaces on said opposing transition surfaces are constructed to cooperate to form an interference fit with a driver constructed to engage said recess.

11. A method of manufacturing a fastener, according to claim 6, wherein said interference surfaces are constructed to provide an interference fit only at a

forward portion of said driver and to allow said driver to have a surface to surface contact with said wings at a rearward portion of said driver.

12. A method of manufacturing a fastener, according to claim 6, wherein said first radial distance is constructed substantially according to a standard recess opening of a spiral type recess.

13. A method of manufacturing a fastener, according to claim 6, wherein said step of measuring a predetermined depth of said recess from said level where said interference occurs further comprises the steps of:

constructing a probe having a shape consistent with a standard spiral driver;

operatively connecting said probe with a gage for measuring a distance into said recess at which said interference fit occurs; and

inserting said probe into said recess.